

REMARKS

Claims 8, 9, 11, 12, 15, 16, 18 and 19 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,544,361 B1 to Diz et al. (hereinafter "Diz").

Claims 8 and 15 are hereby amended to incorporate the limitations of claims 12 and 19, respectively. Claims 12 and 19 are hereby canceled in view of this amendment. In addition, claims 13 and 14 are hereby canceled, without prejudice as they are drawn to a non-elected invention.

Reconsideration of the application based on the foregoing amendments and the following remarks is respectfully requested.

35 U.S.C. 103(a) Rejections

Claims 8, 9, 11, 12, 15, 16, 18 and 19 were rejected under 35 U.S.C. §103(a) as unpatentable over Diz.

Diz discloses "a method for making flat, thin elements which consist of: producing a zirconium alloy blank also containing, besides the inevitable impurities, 0.8 to 1.3% of niobium, 100 to 1800 ppm of oxygen, and 10 to 35 ppm of sulfur; carrying out a β hardening and hot rolling to obtain a blank and performing in it at least three cold rolling passes with intermediate annealing heat treatments." (See Abstract). The hot-rolling process is typically carried out at a temperature between 770°C and 790°C. (Col. 3, lines 49 to 51).

Claims 8 and 15 are hereby amended and include the specific requirement that "a final of the hot-rolling passes being carried out between 900 and 1030°C and not being followed by any quenching operation."

Diz fails to teach or show the limitation of "a final of the hot-rolling passes being carried out between 900 and 1030°C" as required in claims 8 and 15. As admitted in the Office Action on page 2 and explained above, the highest temperature taught in Diz for the final hot-rolling step is 790°C. The present invention provides a particular zirconium alloy flat product having a Kearns factor FT of between 0.30 and 0.70 which is used in the manufacture of reactor spacer grids of light water nuclear power plants. This flat product has certain advantages over prior art flat products, particularly with respect to its response to

irradiation during use. These advantages include an increase, instead of a decrease, in the clamping power of the spacer grid in response to such irradiation. These advantages are provided by the texture (as measured by the Kearns factor FT) of the flat product. The temperature of the hot-rolling process impacts the character of the flat product texture, and the higher temperature used in the present invention produces textures having a higher Kearns factor FT. (Substitute Specification page 11, lines 26 to 27). The final hot rolling process as claimed is conducted at a much higher, and thus different, temperature than Diz, which produces the different product texture that provides advantageous benefits not present in the products produced by the Diz method.

Since Diz does not disclose or teach this key limitation, withdrawal of the rejection of independent claims 8 and 15 under 35 U.S.C. §103(a) and dependent claims 9, 11, 12, 16, 18 and 19 is respectfully requested

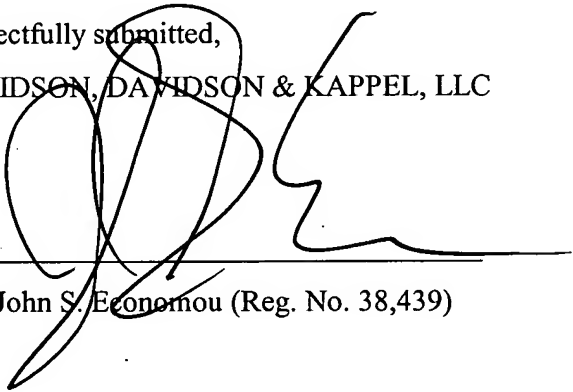
CONCLUSION

It is respectfully submitted that the application is in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

Respectfully submitted,
DAVIDSON, DAVIDSON & KAPPEL, LLC

DATED: July 22, 2009

By: 
John S. Economou (Reg. No. 38,439)

Davidson, Davidson & Kappel, LLC
485 Seventh Avenue, 14th Floor
New York, New York 10018
(212) 736-1940